

Trinidad State Junior College Associate of Science Transfer Program Improvements



USDA CSREES HSI Grant Proposal #2007-02381

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Abstract

Trinidad State Junior College, is a comprehensive, Hispanic-serving, rural Colorado community college. This USDA /CSREES grant funded project will enhance the TSJC biology and chemistry programs through collaboration with the USDA Forest Service, Trinidad NRCS Field Office, curriculum improvements, state of the art scientific equipment, and technology based instruction. It will increase enrollment for historically underserved students. At least 250 Associate of Science students and three instructors will benefit directly from this project during the two year grant period.

USDA Strategic Goals and Objectives

TSJC AS Transfer Degree Program provides an indirect benefit to all six of the USDA Strategic Goals by educating students with fundamental knowledge in the agricultural and food science arena. Students completing an AS Transfer Degree from Trinidad State are able to pursue careers and further education to:

- enhance international competitiveness of American agriculture;
- enhance the competitiveness and sustainability of rural farm economies;
- support increased economic opportunities and improved quality of life in rural America;
- enhance protection and safety of the Nation's agriculture and food supply;
- improve the Nation's nutrition and health; and
- protect and enhance the Nation's natural resource base and environment.

Objectives

The four major objectives of the TSJC Associate of Science Transfer Program are:

- update biology and chemistry laboratories and greenhouse with state of the art scientific equipment;
- update biology and chemistry classrooms with technology based delivery methods;
- train science instructors to effectively and efficiently utilize the laboratory and technology based equipment; and
- increase enrollment of those groups (Hispanic, minority and first generation students) historically underrepresented in the TSJC Associate of Science Transfer Program through scholarship incentives.

An overriding objective of local, accessible quality higher education opportunities in the fundamental courses required for all agriculture majors is improvement in the quality of life in the eight Colorado Counties that comprise our service area. As a rural, Hispanic Serving Institution, many of our students are non-traditional. By taking the fundamental courses in their emphasis area at TSJC, many students are able to economically pursue their goals while maintaining employment or family obligations. We want our biology and chemistry programs to provide additional opportunities for the historically underserved students of our area. Students who earn a college degree (whether the highest degree attained is an associate, bachelor, or master degree) have increased earning potential and a wider variety of career opportunities.

Students who aspire to return to, or enter into the agriculture sector will be better equipped to manage the risks inherent in their operations after completing the AS Transfer Degree Program at Trinidad State Junior College. A major consequence of this grant will be that students completing the AS Transfer Degree Program at Trinidad State Junior College will be equipped with a solid foundation in the sciences that will allow them to be successful in any of the agriculture disciplines.

Approach

Fall Semester 2007

- Repairs will be made to the greenhouse.
- State of the art scientific instrumentation for teaching in the biology and chemistry laboratories will be purchase and installed.
- Three science instructors will be trained to effectively and efficiently utilize the laboratory and technology based equipment.
- Secure lectern, computer, projector, sound system, internet connectivity and components to instruct students in the classroom utilizing technology.
- Faculty will be trained on the use of the new instructional technology equipment.
- Advertise USDA Forest Service Internships. Berlinda Baca-Sanchez with the USDA Forest Service will meet with students. Six internships are available for summer 2008.
- Instructors will update their curricula to integrate new laboratory equipment and instructional technology.
- The TSJC Website will be updated to reflect program improvements.

Spring Semester 2008

- The PD will organize a scholarship committee and the committee will develop the Scholarship Program.
- Update the TSJC website to include new regular and continuing education scholarships and program improvement information.
- Advertise and promote the Scholarship Program.
- Six students will receive tuition scholarships to attend the AS Transfer Program at TSJC.
- Aggressive advertisement and recruitment will promote the TSJC AS Transfer Program.
- Complete repairs and renovations in the greenhouse and utilize the renovated greenhouse for biology/botany laboratory activities and plant research

Summer Semester 2008

- Science faculty will receive continuing training with new laboratory equipment and instructional technology equipment.
- Faculty will also identify curriculum to be updated.
- The PD will promote the Associate of Science program by attending recruitment activities.
- Recruitment will include announcement of scholarship opportunities.
- Scholarship applications will be accepted, reviewed and awarded for the fall semester.
- Up to six students will work as USDA Forest Service Interns.
- Trinidad State Junior College will obtain an independent evaluation to secure appropriate documentation of the project's outcomes and impacts.
- The project progress, products, dissemination activities, future initiatives and overall impacts will be reported in the Annual Performance Report.

Fall Semester 2008

- Science faculty and TSJS AS transfer students will conduct scientific research utilizing the new laboratory equipment and the renovated greenhouse.
- Program recruitment will include information about the research being conducted and the continuing education scholarship.
- Scholarship applications will be accepted and reviewed.

Spring Semester 2009

- Science faculty and students will attend a regional or national conference and present the result of original research conducted using the new laboratory equipment and/or the renovated greenhouse.
- Scholarship Selection Committee will interview finalists for the continuing education scholarship and will select a scholarship recipient.
- This student will be recognized during the spring semester commencement.
- The summative evaluation is scheduled for August 2009.
- The summative report will be completed by the PD with input from the external evaluator.

Berlinda Baca-Sanchez, USDA Forest Service Liason - Hispanic Recruitment Initiative, met with TSJC students about summer internships and co-op positions.



Budget

USDA CSREES

•Equipment (>\$5,000.00)	47,760.00
•Supplies/equipment/IT	73,240.00
•Scholarships	71,000.00
•Travel/Training	10,000.00
•Alterations & renovations – Repair/Upgrade Greenhouse	20,000.00
•Recruitment	20,000.00
•Consultant – External Evaluator	3,000.00
•Indirect	30,000.00
Total	\$275,000.00

Trinidad State Junior College Matching Funds

Instructors salaries	272,174.00
Science classroom and laboratory facilities	100,000.00
Total matching funds	\$372,174.00

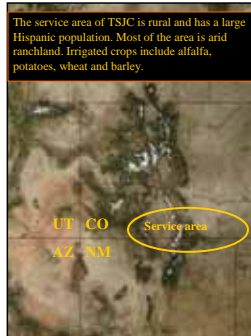
Total	
Combined commitment to this project	\$647,174.00

Summary

This project will increase recruitment, enrollment, retention and educational equality for historically underserved students. It will enhance the TSJC biology and chemistry programs through collaboration with the USDA Forest Service, Trinidad NRCS Field Office, curriculum improvements, state of the art scientific equipment, and technology based instruction. At least 250 Associate of Science students and three instructors will benefit directly from this project during the two year grant period.



This project will increase recruitment, retention, preparation and graduation of minority students.



The service area of TSJC is rural and has a large Hispanic population. Most of the area is arid ranchland. Irrigated crops include alfalfa, potatoes, wheat and barley.



The primary beneficiaries of this project are the Associate of Science transfer students from rural, Hispanic southern Colorado and northern New Mexico.



Southern Colorado is rich in wildlife and natural resources. Very few of our natural resource managers are Hispanic or Native American.



Many minority students are seeking employment in coal bed methane drilling instead of attending college.



Our Hispanic students have traditionally been underrepresented in AS transfer programs.